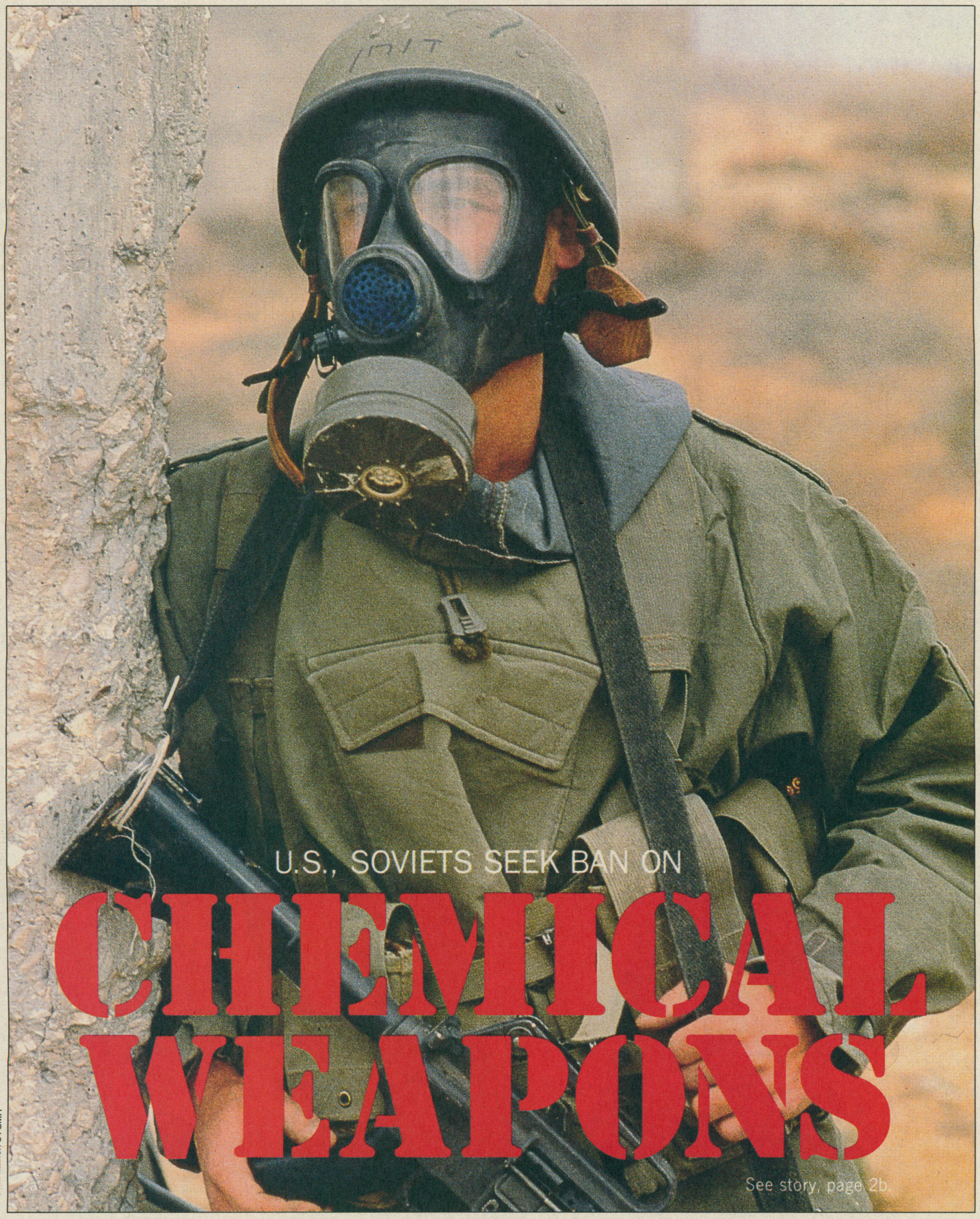
Weekly Reader®
Senior Edition

A Supplement to
Weekly Reader
Senior Edition
Issue 11
December 1, 1989



U.S., SOVIETS SEEK BAN ON

CHEMICAL WEAPONS

See story, page 2b.

© M. Milner/SYGMA

U.S., SOVIETS SEEK BAN ON CHEMICAL WEAPONS

DATE: *April 22, 1915*
PLACE: *Belgium*

Enemy French and German soldiers face each other across a battle-scarred field from deep trenches. World War I has been under way for eight months. But spring rains have bogged down the fighting in rain-soaked fields.

Suddenly, a yellow-green haze drifts like a heavy fog across the field toward the French soldiers. It is chlorine gas. As the gas reaches the soldiers, they begin choking and dying. The world has seen its first use of chemical warfare.

In the following three years of the war, both sides use many kinds of poison gases. The gases kill hundreds of thousands of people.

By the end of the war, world leaders are so horrified by the effects of chemical weapons that in 1925 they agree to a worldwide ban on their use in war. However, construction and possession of the weapons is still permitted.

Chemical weapons are poison gases designed to kill as many people as possible over as wide an area as possible. The gases can be dropped in bombs, shot in cannon shells, or released from suit-case-size containers. The gases, often invisible and odorless, painfully kill every creature that breathes them.

It has been more than half a century since the U.S. and other major nations agreed not to use these weapons. But today, say experts, that agreement is breaking down.

Smaller countries—including Iran, Iraq, and Libya—have reportedly used chemical weapons in recent years. The chemicals have killed hundreds of soldiers and have wiped out villages in minutes.

At least 16 countries now have chemical weapons, and at least 20 countries are capable of producing them. Within 10 years, 40 or more nations could possess them.

Smaller countries see chemical weapons as a cheap and easy way to increase their military power. Most common types of chemical weapons can be made from any of a wide variety of commonly available chemicals, say experts.

Bush Urges Ban

President George Bush says that the spread of chemical weapons is the "single greatest emerging military danger" in the world today. He is particularly worried about chemical weapons in the hands of violent or unstable leaders.

Bush wants a worldwide ban on the possession as well as the use of chemical weapons. He says that the U.S. and Soviet Union should lead the way by destroying many of their chemical weapons.

The U.S. and Soviet Union have the largest chemical weapons stockpiles in the world. The U.S. has about 30,000 tons of chemical weapons. The Soviet Union admits to having 50,000 tons of chemical weapons. However, U.S. experts say that the Soviet stockpile is closer to 300,000 tons.

Bush says that the U.S. will destroy 80 percent of its chemical weapons if the Soviet Union cuts its chemical weapons stockpile to the same level.

These cuts, says Bush, should come even before a treaty is signed by all nations to ban the weapons. A treaty could take two years to write and several more years for all nations to approve.

Bush says that the U.S. will destroy all its remaining chemical weapons two years after all countries capable of making chemical weapons have signed the treaty.

Soviet leader Mikhail Gorbachev has reportedly agreed to the suggested cuts in chemical stockpiles. But Gorbachev wants to go one step further. He wants both superpowers to agree not to develop any new kinds of chemical weapons. The U.S., which is working on a new type of chemical weapon, does not want to agree to stop developing it.

Bush and Gorbachev may sign an agreement on chemical weapons at a summit meeting planned for spring or summer.

Can Your Face Control Your Moods?

Do you smile because you're happy? Or are you happy because you smile?

Some scientists think that your facial expression may have something to do with the way you feel. That doesn't mean someone who is very sad can suddenly become very happy by smiling. But many experts believe that the movements of face muscles affect emotions.

Study Focuses on Muscles

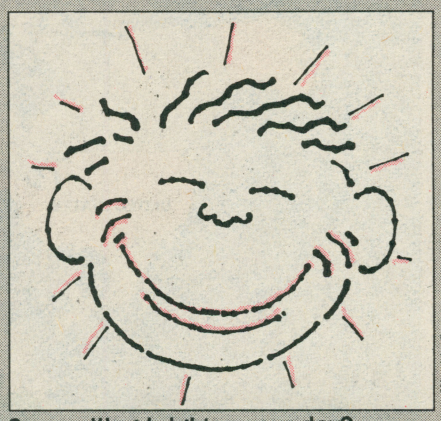
In one study, Dr. Robert Zajonc of the University of Michigan had volunteers repeat vowel sounds over and over. The subjects were not told they were part of a study on emotions.

The long *e* vowel sound forces a face to make a smile, whereas long *u* does not. The subjects who pronounced the long *e* reported developing happy feelings. But pronouncing the long *u* put them in a sour mood.

Muscles Warm, Cool Brain?

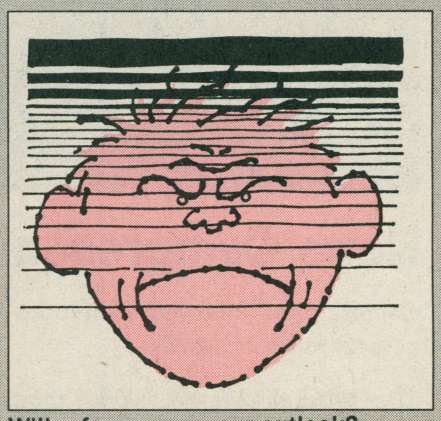
Doctor Zajonc's theory is that as certain face muscles tighten or relax, they lower or raise the temperature of the blood that flows to the brain. For example, a smile tightens cheek muscles. The tightened muscles restrict some blood flow to the brain, causing the brain to cool slightly. But a frown tightens different facial muscles allowing greater blood flow to the brain. This greater blood flow causes the brain to warm slightly.

Doctor Zajonc suggests that raising the blood temperature causes unpleasant feelings and cooling it leads to pleasant emotions. Researchers at other universities have found results similar to Dr. Zajonc's. However, some scientists disagree with the conclusions of these studies. They say that emotions come from thoughts. Facial expressions are the result, not the cause, of those feelings, they say.



—Weekly Reader art

Can smiling brighten your day?



Will a frown sour your outlook?

Mountain Goats In Trouble

One thousand goats in Olympic National Park in Washington know how it feels to be unwanted. For two years park rangers have been trying to capture the goats for removal to other areas

Mountain goats have bad habits, park officials say. Trips of mountain goats destroy many acres of mountain meadowland each year, including rare wildflowers. They overgraze and scrape away meadow grass to make places for dust baths.

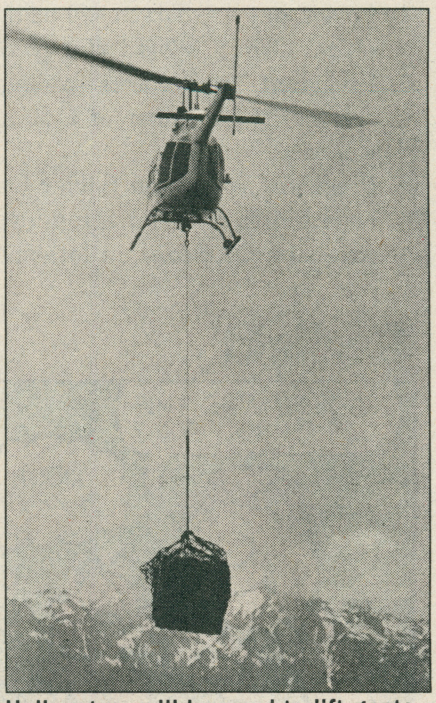
Capturing the goats is difficult, expensive, and sometimes harmful to the goats. But if the 1,000 goats can't be captured, park rangers are under orders to start shooting them beginning in 1991.

—Los Angeles Zoo photo by Sy Oskeroff

Rangers say 1,000 goats must go.

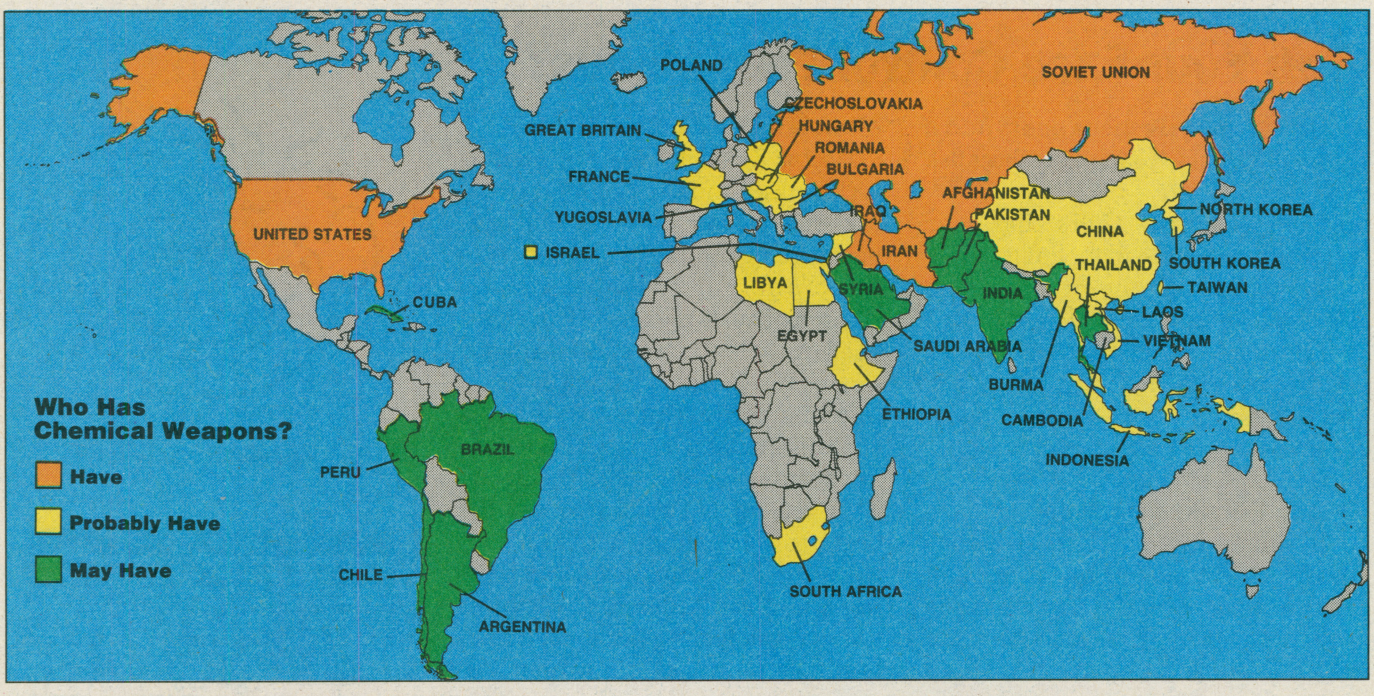
Animal protection groups are already protesting this plan.

"We're all for saving rare plants, but not by killing wild animals," says a Fund for Animals official.



—UPI photo

Helicopters will be used to lift goats from mountains.



— *Weekly Reader* map by Joe Carnicelli

News Comprehension

Complete the following sentences by underlining the correct word or words.

1. A total of *(10; 50; 1,000)* mountain goats must be moved or destroyed in Olympia Park.
2. A group of mountain goats is called a *(pod, watch, trip)*.
3. Dr. Robert Zajonc believes that *(smiling, frowning, screaming)* may cause a person to feel happy.
4. Poison gas was first used as a military weapon in *(World War I, World War II, the Vietnam War)*.
5. President Bush wants to *(increase, decrease, not change)* the number of U.S. and Soviet chemical weapons.
6. President Bush and Soviet leader Gorbachev are expected to meet for a top-level meeting, called a *(tea, summit, peak)*, in late spring or summer.
7. Gorbachev reportedly *(strongly opposes, supports, is undecided)* about Bush's proposal on cutting U.S. and Soviet chemical weapons stockpiles.
8. Within 10 years a total of about *(10; 40; 1,000)* nations may have chemical weapons, say experts.

News Map Reading

Study the map above. Then write T before each true statement and F before each false statement below.

___ 1. The U.S. and Soviet Union both have chemical weapons.
___ 2. China probably has chemical weapons.
___ 3. Iraq and Iran do not have chemical weapons.
___ 4. Libya probably has chemical weapons.
___ 5. All countries bordering the U.S. have chemical weapons.
___ 6. India definitely has chemical weapons.

Garfield

by Jim Davis

© 1988 United Feature Syndicate, Inc.

—reprinted by permission of UFS, Inc.